ABSTRACT OF THE DISCLOSURE

One embodiment of the present invention includes a plant growth system consisting of a vertically positioned source of light, a reservoir, a pump, a volume of liquid based nutrient composition, a plurality of independent growing chambers arranged in a planar array around said one or more sources of light, each of said growing chambers comprising a container portion with a base and sides, an inflow/outflow gate accommodated in the base of said container portion, an height adjustable overflow gate accommodated within said container portion, and drainage plumbing connecting said container portion with said reservoir, and wherein each of said growing chambers accommodates one or more plant holding containers,

wherein when said pump is activated, said pump transports said nutrient composition from the reservoir through the inflow/outflow gate into said growing chambers, and wherein when one of said growing chambers becomes flooded to the level of said overflow gate, said overflowing nutrient composition is returned to said reservoir via said drainage plumbing, and wherein when said pump is deactivated, said nutrient composition remaining in each growing chamber returns to the reservoir via the inflow/outflow gate.